

PUJR 16.535
~~00/12/05~~

09H2665H

In the Claims:

Please amend the claims as follows:

1. (currently amended) A radio communication system for performing radio communication control having frames with a plurality of transmit and receive time slots and guard intervals between said receive time slots, comprising:

a propagation information calculation device including continuous receive time slot allocating means for allocating to a terminal unit more than one receive time slot in a frame to generate from the more than one receive time slot a continuous receive time slot, which includes a single continuous receive portion and a single continuous expanded guard bit portion for the terminal unit, and propagation information calculating means for communicating with the terminal unit during a period of the continuous time slot to calculate propagation information about radio wave propagation between a radio base station and the terminal unit; and

a transmission timing calculation device including transmission timing calculating means for calculating, during the period of the continuous time slot and based on the propagation information, transmission timing for a signal to be transmitted from the terminal unit to the radio base station, and signal transmitting means for transmitting the signal in accordance with the transmission timing,

wherein to calculate the propagation information, said propagation information calculating means measures a time from transmission of test data to the terminal unit to reception of the test data returned from the terminal unit, and calculates at least one of a radio wave propagation time and distance between the radio base station and the terminal unit, and

said continuous receive time slot allocating means cancels allocation of the continuous receive time slot after the transmission timing is calculated.

FOUR 16.535
08/12/05

09426654

2. (previously cancelled)

3. (original) The radio communication system according to claim 1, wherein said transmission timing calculation device stores information on the calculated transmission timing in a nonvolatile memory.

4. (previously cancelled)

5. (currently amended) A propagation information calculation device arranged in a radio base station for calculating radio wave propagation information utilizing frames with a plurality of transmit and receive time slots and guard intervals between said receive time slots, comprising:

continuous receive time slot allocating means for allocating to a terminal unit more than one receive time slot in a frame to generate from the more than one receive time slot a continuous receive time slot, which includes a single continuous receive portion and a single continuous expanded guard bit portion for the terminal unit; and

propagation information calculating means for communicating with the terminal unit during a period of the continuous time slot to calculate the radio wave propagation information about radio wave propagation between the radio base station and the terminal unit.

6. (currently amended) A transmission timing calculation device arranged in a terminal unit for calculating transmission timing for a signal and utilizing frames with a plurality of transmit and receive time slots and guard intervals between said receive time slots, comprising:

FUJR 16.535
~~09/07/05 01:14~~

09426654

transmission timing calculating means for calculating, during a period of a continuous time slot generated by allocating to the terminal unit more than one transmit time slot and more than one receive time slot in a frame, the more than one receive time slot generating a continuous receive time slot including a single continuous receive portion and a single continuous expanded guard bit portion, transmission timing for a signal to be transmitted from the terminal unit to a radio base station in accordance with propagation information about radio wave propagation between the radio base station and the terminal unit; and

signal transmitting means for transmitting the signal in accordance with the transmission timing.

7. (currently amended) A radio communication method for performing radio communication control having frames with a plurality of transmit and receive time slots and guard intervals between said receive time slots, comprising:

allocating to a terminal unit more than one receive time slot in a frame to generate a continuous receive time slot for the terminal unit, said continuous receive time slot includes a single continuous receive portion and a single continuous expanded guard bit portion;

communicating with the terminal unit during a period of the continuous time slot to calculate propagation information about radio wave propagation between a radio base station and the terminal unit;

calculating, during the period of the continuous time slot and based on the propagation information, transmission timing for a signal to be transmitted from the terminal unit to the radio base station; and

transmitting the signal in accordance with the transmission timing.

EJUR 16.535
09/12/05

09426654

wherein to calculate the propagation information, a time from transmission of test data to the terminal unit to reception of the test data returned from the terminal unit is measured to calculate at least one of a radio wave propagation time and distance between the radio base station and the terminal unit.

8-15. (canceled):

16. (newly added) A radio communication system for performing radio communication control having frames with a plurality of transmit and receive time slots and guard intervals between said receive time slots, said system as implemented in a base station comprising:

a propagation information calculation device comprising:

a continuous time slot allocating means for allocating an up continuous time slot comprising a single continuous transmitting time slot and a single continuous expanded guard bit portion and for allocating, to a terminal device, a down continuous time slot comprising a single continuous receiving time slot and a single continuous expanded guard bit portion, and

a propagation information calculating means for communicating with the terminal unit during a period defined by the single continuous transmitting time slot to calculate propagation information about radio wave propagation between a radio base station and the terminal unit;

wherein a transmission timing calculation device, located in a terminal unit, comprises: a transmission timing calculating means to calculate, during the period of the single continuous transmitting time slot and based on the propagation information,

EUIR 16.535
09/12/05

09H26654

transmission timing for a signal to be transmitted from the terminal unit to the radio base station; and a signal transmitting means to transmit the signal in accordance with the transmission timing,

whereby an expanded range of protection is provided by the expanded guard bits by delaying transmission based on said calculated transmission timing so that up data is received in a receiving time slot.

17. (newly added) A method as implemented in a radio base station for calculating radio wave propagation information utilizing frames with a plurality of transmit and receive time slots and guard intervals between said receive time slots, said method comprising:

allocating an up continuous time slot comprising a single continuous transmitting time slot and a single continuous expanded guard bit portion and for allocating, to a terminal device, a down continuous time slot comprising a single continuous receiving time slot and a single continuous expanded guard bit portion, and

calculating means for communicating with the terminal unit during a period defined by the single continuous transmitting time slot to calculate propagation information about radio wave propagation between a radio base station and the terminal unit; and

receiving a calculated transmission timing for a signal to be transmitted from the terminal unit to the radio base station, said calculation performed during the period of the single continuous transmitting time slot and based on the propagation information, and

receiving a transmitted signal in accordance with the transmission timing,

FUJR 16.535
~~00/02/05~~

09H266SH

wherein an expanded range of protection is provided by the expanded guard bits by
delaying transmission based on said calculated transmission timing so that up data is received in
a receiving time slot.